L-Kynurenine Antibody – Mouse Monoclonal

Ref: IS003

Our anti-L-Kynurenine antibody IS1003 enabled to illustrate, for the first time, the presence of L-kynurenine in human brain and tumor samples by IHC and IF. This mouse monoclonal antibody can be used in combination with other primary antibodies to kynurenine metabolites (rabbit polyclonals available).

Clonality	Monoclonal antibody (clone 3D4-F2)
Host	Mouse
Validated applications	IHC / IF
Reactivity	Reacts with all species
Format	50µL
References	Cited in 10 papers

INFORMATIONS

Product overview

Product name	L-Kynurenine antibody
Synonyms	(S)-Kynurenine antibody L-2-Amino-4-(2-aminophenyl)-4-oxobutanoic acid antibody Kynurenin antibody 3-Anthraniloyl-L-alanine antibody,
Immunogen	Conjugated L-Kynurenine
Isotype	IgG1 k chain
Clone	clone 3D4-F2
Specificity	When tested in competitive ELISA, the anti-L-Kynurenine antibody did not show any significant cross reactivity with L-Tryptophan, 3-hydroxy-DL-Kynurenine, Kynurenic acid, Anthranilic acid or 3-hydroxyAnthranilic acid conjugates

Storage

Form	Liquid
Purity	Purified IgG
Concentration	0,5mg/ml
Storage	Store at +4°C for short term (1-2 months). Aliquot and store at -20°C for long term. Avoid repeated freeze / thaw cycles
Material safety datasheet	Download MSDS

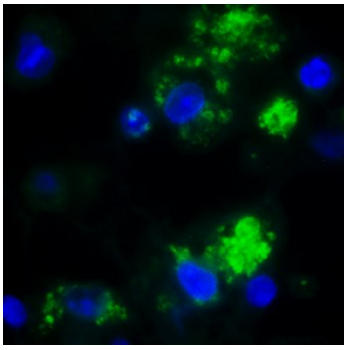
PROTOCOLS

Immunohistochemistry (IHC)	Dilute at 1:200-1:2000. Perform heat antigen retrieval (pH=6) before initiating IHC staining protocol on paraffin-embedded and frozen sections
Immunofluorescence (IF)	Dilute at 1:100-1:1000 on paraffin-embedded and frozen sections. Before staining, perform heat antigen retrieval
Comments	Optimal working dilutions must be determined by the end-user
Restrictions	For research use only

REFERENCES

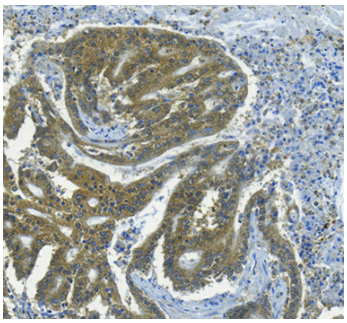
Product citations

Product pictures



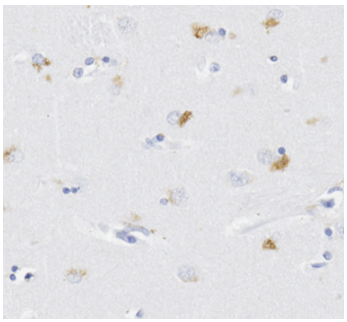
L-Kynurenine visualization in human intestinal immune cells by IF

Immunofluorescence staining reveals L-Kynurenine accumulation in specific immune cells in human colon tissue. Paraffin-embedded tissue section was subjected to pH=6 antigen retrieval followed by overnight incubation with primary antibody (dilution 1/250). After incubation with Alexa-488 conjugated secondary Ab, epifluorescence microscopy (100X) was used to visualize IF staining.



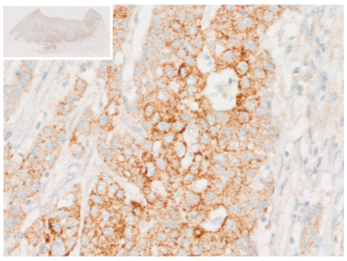
L-Kynurenine detection in human colon cancer tissue by IHC

Immunohistochemical staining of human colorectal cancer tissue shows cytoplasmic accumulation of L-Kynurenine in tumour cells. Paraffin-embedded tissue section was subjected to pH=6 antigen retrieval, and overnight incubation with primary antibody (1/500 dilution). A polymer-conjugated secondary Ab was added and immunostaining was revealed using DAB.



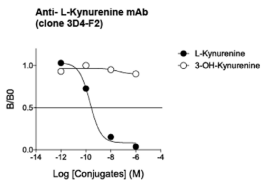
L-Kynurenine detection in human brain tissue by IHC

Detection of L-Kynurenine in glial cells in human caudate putamen. Paraffin-embedded tissue section was subjected to pH=6 antigen retrieval followed by overnight incubaton with primary antibody (dilution 1/500). After incubation with polymer-conjugated secondary Ab, DAB was used to visualize the staining



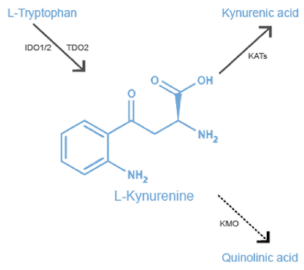
Immunohistochemical analysis reveals accumulation of L-Kynurenine within tumor cells of human colorectal cancer (CRC) tissue.

Using DiscoveryUltra™ platform (Ventana), a paraffin-embedded tissue section of CRC was subjected to antigen retrieval, and incubation with primary anti-KYN monoclonal antibody. Presence of Kynurenine was then evaluated through the use of a DAB conjugated secondary antibody. Image (x40 magnification) was acquired using Polaris Vectra (Perkin Elmer) automated slide scanner.



Affinity & Specificity of anti- L-Kynurenine mAb 3D4-F2

Competitive ELISA demonstrates that low amounts of L-Kynurenine conjugate are required to abolish antigen-antibody reaction (high affinity), while rising concentrations of 3-OH-Kynurenine conjugate do not affect reaction (high specificity).



L-Kynurenine

L-Kynurenine, the first stable by-product of the kynurenine pathway, is synthesized from L-Tryptophan by indoleamine 2,3-dioxygenase (IDO1/2) or tryptophan 2,3-dioxygenase (TDO2) enzymes. Acting as an endogenous ligand of Aryl hydrocarbon Receptor (AhR), L-Kunrenine exerts anti-inflammatory effects and promotes glioma progression. L-kynurenine is also widely used as a biomarker of tryptophan catabolism and kynurenine pathway activation in immune-related and neurological disorders.

Contact information

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To order, review, ask for technical support, visit product page at:

https://www.immusmol.com/shop/l-kynurenine-mab/